

# REPORT OF THE EXECUTIVE COMMITTEE 1952-54

## COUNTRIES ADHERING TO THE UNION

Since the last General Assembly of the I.A.U., Venezuela has adhered to the Union in 1953 and Israel and the Lebanese Republic in 1954.

The following is the list of countries adhering to the Union and of the adhering organizations:

Argentine Republic	1927	Government (Universidad Nacional de La Plata).
Australia ... ..	1939	Australian Academy of Science.
Belgium ... ..	1920	Académie Royale de Belgique.
Canada ... ..	1920	Department of Mines and Technical Surveys.
Chile ... ..	1947	Observatorio Astronómico de la Universidad de Chile, Santiago de Chile.
China ... ..	1935	National Committee of Astronomy, Nanking.
Czechoslovakia ...	1922	Academy of Sciences, Prague.
Denmark ... ..	1922	Kongelige Danske Videnskabernes Selskab, Kjøbenhavn.
Egypt ... ..	1925	Government.
Eire ✓ ... ..	1947	Dublin Institute for Advanced Studies.
Finland ... ..	1948	Académie des Sciences et Lettres, Helsinki.
France ... ..	1920	Académie des Sciences, Paris.
Germany ... ..	1951	Astronomische Gesellschaft, Hamburg-Bergedorf Sternwarte.
Great Britain ...	1920	Royal Society, London.
Greece ... ..	1920	Académie d'Athènes, Athens.
Hungary ... ..	1947	Hungarian Academy of Sciences, Budapest.
India ... ..	1946	Ministry of Natural Resources and Scientific Research, New Delhi.
Israel ... ..	1954	The Research Council of Israel.
Italy ... ..	1921	Consiglio Nazionale delle Ricerche, Roma.
Japan ✓ ... ..	1920	National Research Council, Tokyo.
Lebanese Republic	1954	National Lebanese Committee for Astronomy.
Mexico ... ..	1921	National University of Mexico.
Netherlands ...	1922	Koninklijke Nederlandsche Akademie van Wetenschappen, Amsterdam.
Norway ... ..	1922	Det Norske Videnskaps-Akademi, Oslo.
Poland ... ..	1922	Polska Akademia Nauk, Warszawa.
Portugal ... ..	1924	Government.
Roumania ... ..	1928	Comitetul National Astronomic.
South Africa ...	1938	The Council for Scientific and Industrial Research, Pretoria.
Spain ... ..	1922	Academia de Ciencias Exactas, Madrid.
Sweden ✓ ... ..	1925	Kungl. Vetenskapsakademien, Stockholm.
Switzerland ...	1923	Schweizerische Naturforschende Gesellschaft, Bern.
United States ...	1920	National Research Council, Washington.
U.S.S.R. ... ..	1935	Academy of Sciences of the U.S.S.R., Moscow.
Vatican City State	1932	Pontifica Accademia delle Scienze i Nuovi Lincei, Roma.
Venezuela ... ..	1953	Academia de Ciencias Fisicas Matematicas y Naturales, Caracas.
Yugoslavia ... ..	1935	Conseil des Académies de la R.F.P.Y., Belgrade.
Austria ... ..	1955	Österreichische Akademie der Wissenschaften
Bulgaria ... ..	1957	Bulgarska akademia na nauk

### APPOINTMENTS MADE BY THE EXECUTIVE COMMITTEE

Prof. T. G. Cowling was appointed President of Commission 35 after Prof. S. Chandrasekhar resigned from this function.

Prof. J. H. Oort was appointed President of Sub-Commission 33*a*, which will continue the work started at the Groningen symposium on 'Co-ordination of Galactic Research'.

Prof. B. Lindblad and Prof. P. Th. Oosterhoff represented the I.A.U. at the sixth General Assembly of I.C.S.U. in 1952.

At the fifth and sixth meetings of the Executive Board of I.C.S.U. in 1953 and 1954 the I.A.U. was represented by Dr A. Couder and Prof. P. Th. Oosterhoff and by Sir Harold Spencer Jones and Prof. P. Th. Oosterhoff respectively.

Prof. E. Dingle represented the I.A.U. at the General Assembly of I.U.H.S. in 1953, while the I.A.U. was represented in 1954 by Dr J. L. Pawsey at the General Assembly of U.R.S.I. and by Prof. A. Danjon and Sir Harold Spencer Jones at the General Assembly of I.U.G.G.

In 1954 Dr P. Bourgeois and Sir Harold Spencer Jones represented the I.A.U. at a meeting of the International Latitude Service.

Prof. A. Danjon represented the I.A.U. in 1954 at the celebration of the centenary of Henri Poincaré's birthday.

The General Secretary represented the I.A.U. in 1954 at the opening ceremony of the renewed Pulkovo Observatory.

The Executive Committee appointed Prof. A. Danjon and Sir Harold Spencer Jones to represent the I.A.U. in I.C.S.U.'s Special Committee for the International Geophysical Year (C.S.A.G.I.).

#### MEETINGS OF THE EXECUTIVE COMMITTEE

After the Rome General Assembly the Executive Committee met only once, namely in Liège, on 12–14 July 1954.

The following took part in the meetings: O. Struve (President), V. A. Ambartsumian (Vice-President), A. Couder (Vice-President), E. Rybka (Vice-President), P. Swings (Vice-President), R. v. d. R. Woolley (Vice-President), B. Lindblad (former President), B. Strömberg (former General Secretary), P. Th. Oosterhoff (General Secretary) and in advisory capacity A. Danjon, Sir Harold Spencer Jones, P. G. Kulikovskiy, J. H. Oort, G. A. Shajn and F. J. M. Stratton. The agenda of the meeting included the following items: financial status of the I.A.U. and grants-in-aid from U.N.E.S.C.O.; future symposia and the publication thereof; the next General Assembly and the assembly of 1958; the question of co-option and nomination; discussion of plans for a change in the organization of the Union and its standing commissions.

In some financial matters, which could not be postponed until the next General Assembly, a decision was taken. The Executive Committee allocated a grant of \$1000 to the Comité de Gestion pour les Tables de Constantes for the 4th and 5th volumes, which are of considerable interest to astrophysicists. Furthermore it allocated a grant of \$500 for the publication of the symposium on 'Co-ordination of Galactic Research' held in 1953 and a grant of \$560 for the publication of the symposium on 'Gas-dynamics and Interstellar Clouds' held in 1953 also. As the grant of \$2000 allocated in 1951 for the publication of the *Quarterly Bulletin on Solar Activity* had been spent and the continuation of this *Bulletin* had become difficult, a new grant of \$1000 was allocated to cover the expenses until the next general assembly.

The time of the ninth General Assembly, to be held in Dublin, was fixed as from 29 August until 5 September 1955.

It was decided that three symposia should be organized on this occasion, two during the assembly and one shortly before. The first, to be held on 25, 26 and 27 August 1955 at the Jodrell Bank Experimental Station near Manchester, will deal with Radio-astronomy and will be organized by Lovell (chairman), Hagen, Laffineur, Pawsey and van de Hulst (secretary).

During the assembly there will be a symposium on 'Non-stable Stars', to be organized by Ambartsumian (chairman), Swings and Herbig, and one on 'A Comparison of the large-scale Structure of the Galactic System with that of other Stellar Systems', to be organized by Oort (chairman), Baade, Pawsey and van de Hulst. Furthermore, four Joint Discussions will take place during the Dublin meeting. The following topics and organizing committees were chosen: Turbulence in Stellar Atmospheres (Greenstein); Fundamental Stars (Zverev, Heckmann, Scott); Solar Flares (Öhman, Pawsey) and Photo-electric Image Tubes and their Astronomical Applications (Baum).

It was also decided that henceforth the symposia, organized by the I.A.U., will be published in a new separate series of publications. The first volume in this series will be the report on the Groningen symposium on 'Co-ordination of Galactic Research', the second that on the Cambridge symposium on 'Gas-dynamics and Interstellar Clouds'.

In order to facilitate the task of the Nominating Committee the Executive Committee approved the following rules for the nominating procedure:

1. Twelve months before the General Assembly adhering organizations will be asked to submit proposed changes in membership. A closing date fixed at nine months before the Assembly will be given and if no reply has been received by the closing date it will be presumed that the organization in question is not proposing any changes as far as its nationals are concerned.

2. The General Secretary will then prepare a list of proposed membership incorporating the changes proposed under (1) and it will be circulated to Presidents of Commissions. A closing date will be given and if a President has not replied by the closing date he will be presumed to have no objection to the suggested list. The closing date will be six months before the General Assembly.

3. Any suggestions made by Presidents of Commissions will be forwarded to the adhering organizations affected with a closing date for their reply. If no reply is received, it is to be presumed that the adhering organization concerned agrees to the changes suggested by the Presidents. The closing date will be three months before the General Assembly.

4. At the General Assembly the nominating committee will be concerned only with: (a) settling cases of disagreement between Presidents of Commissions and adhering organizations; (b) with considering any individual case expressly remitted to it by the Executive. Late nominations or deletions under (1), (2) or (3) above will not be considered and it will be an instruction to the Chairman from the Executive that any such will be ruled out of order.

During the discussion of the present organization of commissions and of the rules for membership, several detailed proposals were made, which would require a change of the by-laws. In view of the complexity of this problem the Executive Committee nominated an informal committee which should try to prepare definite proposals for the Dublin General Assembly.

The Executive Committee approved the formation of two new sub-commissions, which will continue the work started at the Groningen symposium on 'Co-ordination of Galactic Research'. The new sub-commissions are:

33a: Oort (President), Blaauw (Secretary), Baade, Lindblad, Parenago and van Rhijn (members).

27a: Members Baade, Blaauw, Kukarkin and Oosterhoff.

The Executive Committee decided to discontinue Sub-Commission 13a, which had been recommended at the Rome General Assembly in 1952 for collecting and distributing of information about future eclipses.

At present the I.A.U. is represented in three Joint Commissions of the International Council of Scientific Unions, as follows:

Joint Commission on the Ionosphere: Prof. V. G. Fesenkov, Prof. D. H. Menzel and Dr J. L. Pawsey.

Joint Commission on Solar and Terrestrial Relationships: Dr L. d'Azambuja, Mr H. W. Newton, Dr G. Righini, Prof. M. Waldmeier.

Joint Commission on Spectroscopy: Prof. B. Edlén, Prof. G. Herzberg, Dr W. F. Meggers, Dr C. E. Moore-Sitterly, Prof. P. Swings.

With regard to the financial status of the Union and the U.N.E.S.C.O. grants further information is given below in this Report.

## DECEASED MEMBERS

The Executive Committee regret to record the loss by death of the following members of the Union:

- Dr B. A. Asplind, Member of Commission 20. Died 30 September 1954.  
Prof. T. Banachiewicz, Member of Commissions 17, 20, 27, 31. Died 17 November 1954.  
W. Benitez e Inglott, Member of Commissions 4, 23. Died 22 December 1954.  
Prof. J. Chazy, Member of Commissions 4, 7. Died 9 March 1955.  
Prof. A. O. Colacevich, Member of Commissions 9, 29. Died 25(?) August 1953.  
Prof. E. de Caro, Member of Commission 23. Died 2 March 1954.  
Prof. L. F. Erro, Member of Commission 29. Died 18 January 1955.  
Prof. E. Esclangon, Member of Commission 23. Died 28 January 1954.  
G. Fournier, Member of Commission 16. Died 1 December 1954.  
Dr A. Gatterer, S.J., Member of Commissions 29, 29c. Died 17 February 1953.  
Miss Dr V. F. Gaze, Member of Commissions 29, 29c. Died 3 October 1954.  
Prof. L. Gialanella, Member of Commission 16. Died 10 January 1954.  
Dr W. Grotrian, Member of Commissions 10, 13. Died 3 March 1954.  
Dr E. Hubble, Member of Commissions 28, 41. Died 28 September 1953.  
Prof. A. O. Leuschner, Member of Commission 20. Died June 1953.  
S. Lemoine, Member of Commission 40.  
Dr H. Mineur, Member of Commissions 7, 33, 37. Died 7 May 1954.  
Dr F. J. Neubauer, Member of Commissions 5, 30a. Died 16 September 1952.  
Prof. A. J. Orlov, Member of Commission 19. Died 29 January 1954.  
R. M. Stewart, Member of Commission 31.  
Dr J. Tinoco, Member of Commission 31. Died October 1953.  
Prof. L. Volta, Member of Commission 41. Died 7 October 1952.  
Dr F. E. Wright, Member of Commission 16. Died 25 August 1953.

## NEW MEMBERS

After the meeting in Rome the following were co-opted by the various Commissions under By-Law IV, 15:

- H. Abt (29), L. Biermann (15), A. Bruzek (11), J. W. Evans (11), M. W. Feast (29, 29c), V. C. A. Ferraro (35), A. Fresa (42), H. Gollnow (30), A. Gougenheim (18), G. Herzberg (15), J. Junkes (29, 29c), A. König (24), W. Lohmann (37), R. A. Lyttleton (15), V. Maitre (8), W. Markowitz (17), F. D. Miller (15), B. Y. Mills (40), M. G. J. Minnaert (15), R. Müller (11), L. Münch (29), D. J. K. O'Connell (42), G. Pels (20), L. Perek (42), E. Schoenberg (34), Miss R. Szafraniec (27), P. Tempesti (27), A. van Hoof (42), P. Wellmann (42).

## SYMPOSIA

During the eighth General Assembly at Rome three symposia have been held on 'Stellar Evolution', on 'Astronomical Instrumentation' and on 'Problems of Astrometry of Faint Stars'. Together with a joint discussion on 'Spectra of Variable Stars', these symposia have been reported in detail in the eighth volume of the *Transactions* of the I.A.U.

A symposium on 'Co-ordination of Galactic Research', organized by Oort (chairman), Baade, Bok, Fehrenbach, Lindblad, W. W. Morgan and Parenago was held near Groningen, 22-27 June 1953. It was attended by twenty-seven astronomers. A report on this symposium was published in the spring of 1955 as the first volume of the new I.A.U. symposium series.

A symposium on 'Gas-dynamics and Interstellar Clouds' was held in Cambridge (England), 6-11 July 1953, under the combined auspices of the International Union of Theoretical and Applied Mechanics and the International Astronomical Union. Oort, Hoyle, Spitzer and van de Hulst were members of the organizing committee for the I.A.U. The report on this symposium, which was attended by thirty-three invited members of the I.A.U., was published early in 1955 as the second volume of the new symposium series.

The I.A.U. is very grateful to U.N.E.S.C.O. for allocating important grants-in-aid towards travelling and subsistence expenses in connexion with these two symposia.

The symposia planned for the ninth General Assembly have already been mentioned in the section on meetings of the Executive Committee.

#### U.N.E.S.C.O. GRANTS, 1952, 1953 AND 1954

The following grants have been allocated to the I.A.U. by U.N.E.S.C.O. for the purposes mentioned in the breakdown given below: \$14,300 for 1952, \$14,750 for 1953 and \$14,010 for 1954.

						1952	Requested	Allocated	
							\$	\$	
A.	Publications	...	...	...	...			8000	
	1.	<i>Solar Spectrum Tables</i>	...	...	...	1000			
	2.	<i>Astronomische Jahresberichte</i>	...	...	...	1500			
	3.	<i>Transactions, Vol. 8</i>	...	...	...	1500			
	4.	<i>Astrographic Catalogues</i>	...	...	...	1000			
	5.	<i>Heliographic Charts</i>	...	...	...	300			
	6.	<i>Synoptic Charts</i>	...	...	...	900			
	7.	<i>Ephemerides, Minor Planets</i>	...	...	...	800			
	8.	<i>Name-lists, Variable Stars</i>	...	...	...	250			
	9.	<i>Ephemerides, Eclipsing Binaries</i>	...	...	...	300			
	10.	<i>Bulletin Horaire</i>	...	...	...	600			
						\$8150			
B.	Symposia	...	...	...	...			2500	
	Co-ordination of Galactic Research								
C.	Permanent Services	...	...	...	...			3800	
	Bureau International de l'Heure								
								\$14300	

The breakdown of grant A was left entirely to the discretion of the I.A.U.

Grant B of \$2500 was transferred by virement to 1953 for the same purpose.

However, in 1952 an additional sum of \$7650 was available, which had been transferred by virement from 1951. It consisted of the following items:

		\$
(a)	Meetings of Committees	
	1. Travel expenses officers of the I.A.U., General Assembly	1800
	2. Travel expenses 'young astronomers', General Assembly	2000
(b)	Symposia ... ..	3850
	1. Stellar Evolution	
	2. Astronomical Instrumentation	
		\$7650

Of grant (b) a sum of \$1850 remained unspent, which was returned to I.C.S.U.



The I.A.U. is especially grateful to Dr Ronald Fraser, administrative secretary of I.C.S.U. and to Prof. A. V. Hill, General Secretary of I.C.S.U.

Several large and small volumes have been published during the period covered by this report under the auspices and with financial aid from the I.A.U. The financial aid received from U.N.E.S.C.O. for this activity is herewith gratefully acknowledged.

### *List of Publications*

Vol. 8 of the *Transactions of the I.A.U.*

Commission 5:

*Astronomical News Letters*

Bok, Kourganoff

Commission 10:

*Quarterly Bulletin on Solar Activity*

Waldmeier

*Heliographic Charts of the Photosphere*

Waldmeier

Commission 11:

*Cartes Synoptiques de la Chromosphère*

d'Azambuja

Commission 20:

*Ephemerides and Circulars*, Minor Planet Center, Cincinnati

Herget

Commission 23:

*Astrographic Catalogue:*

Edinburgh Section, Zone  $-38^{\circ}$  and Oxford-Potsdam, Zones  $+32^{\circ}$  and  $+33^{\circ}$

Baillaud

Commission 24:

*General Catalogue of Trigonometric Stellar Parallaxes*

Jenkins

Commission 26:

*Bulletin d'Information*

Muller

Commission 27:

*English version of Introduction and Remarks from the third and fourth supplement to the General Catalogue and from the catalogue of Suspected Variables*

Kukarkin, Parenago

Commission 31:

*Bulletins Horaires du Bureau de l'Heure*

Danjon

### INCOME AND EXPENDITURE

At the General Assembly in Rome in September 1952 it was decided that the unit of subscription for the years 1952-55 be fixed at 500 gold francs, the gold franc being defined in accordance with the Statutes of the International Council of Scientific Unions, Vol. 3, p. 107, 1937, as 0.2903225 g. fine gold, or 0.3266 U.S. dollar.

The detailed reports of the accounts of the I.A.U. in different currencies for the years 1952-54, which are to be found at the end of this report, differ in two respects from the previous accounts. According to a decision of the General Assembly of 1952 the financial year now covers the period from 1 November until 31 October. Consequently the accounts for the year 1952 cover a period of ten months only, namely from 1 January until 31 October 1952. From the last date onward the new financial year has been adopted, and the present accounts close on 31 October 1954.

According to a decision by the Executive Committee, taken at its meeting in Liège, in 1954 the accounts in gold francs have been abandoned in the present report. Instead of these, accounts are now given in Italian lires and in French francs. As the I.A.U.'s bank account in Paris for the French francs was opened in 1948, detailed annual accounts are given in this report from 1948 until 1954, although the data for the years 1948-51 can be found in less detail in the gold francs accounts in Vol. 8 of the *Transactions*.

In order to simplify the financial administration, the accounts in Danish and in Swedish crowns have been closed. The account in liras was used only during the year of the eighth General Assembly.

On 1 November 1954 the unexpended balance was about \$94,500. Part of this amount, however, must be considered as committed for publications and for other purposes or as a consequence of virements of U.N.E.S.C.O. grants from the year 1954 to the year 1955. The total amount committed is estimated to be about \$29,000. Therefore the net balance is approximately \$65,500. The increase of the balance from about \$43,000 on 1 January 1952 is due mainly to the fact that nearly all the arrears in subscription have now been paid. At present the total annual income from subscriptions equals 120 units or \$19,596. As the average annual subvention from U.N.E.S.C.O. during the last years amounted to about \$14,000, the available balance would allow the I.A.U. to continue its present activities for about five years, if U.N.E.S.C.O. grants were to be discontinued. The financial situation of the I.A.U. may therefore be considered as satisfactory. The co-operation of National Committees and Adhering Organizations in these financial matters has been most helpful and is herewith gratefully acknowledged.

#### TOTAL INCOME AND EXPENDITURE, 1952-54

During the period covered by this report the rate of exchange between the various currencies in which payments were received and made has been very stable. For the conversion into dollars the following values have been used:

£1 = \$2.8; \$1 = 350 French francs; \$1 = 3.80 guilders; \$1 = 625 liras.

The subscriptions received, including arrears, are as follows:

1952	1953	1954
\$19460.81	\$16003.40	\$34739.59

The large income in 1954 is due to the fact that in this year practically all the outstanding arrears, several of which dated still from the years of war, have been paid.

The amounts paid in 1952-54 on annual grants (cf. *Trans. I.A.U.* 8, p. 65) are given in the following table:

	\$
Commission 6 (Bureau des Télégrammes)	1176
Commission 10 (Cartes héliographiques de la photosphère)	954
Commission 11 (Cartes synoptiques)	1764
Commission 20 (Centre des Petites Planètes, Cincinnati)	1012
Commission 27 (Liste des Noms d'Etoiles Variables)	962
Commission 31 (Bureau International de l'Heure)	17574
Commission 38 (Echange des Astronomes)	6706
Total	\$30148

#### Remarks

Commission 11: Paid for two years only, as in former years the I.A.U. subventions, actually paid, were in excess of the amounts voted.

Commission 20: This sum proved adequate for the operation of the centre.

As the breakdown of the U.N.E.S.C.O. subventions for the category of publications was left to the discretion of the I.A.U., it is not really possible to say which fraction of each subvention given in the above table was reimbursed by U.N.E.S.C.O.

For the category of publications the I.A.U. received from U.N.E.S.C.O. a sum of \$20,590, but this grant was also used to cover part of the expenses for Vol. 8 of the *Transactions*, *Solar Spectrum Tables*, *Astrographic Catalogues* and for the reduction in the price of the *Astronomische Jahresberichte*, all of which will be mentioned below.

The subvention for the Bureau International de l'Heure has been reimbursed by U.N.E.S.C.O. to an amount of \$9520.



The following special subventions were paid:

	\$
Commission 5 ( <i>Astronomical News Letters</i> ) ... ..	600
Commission 5 ( <i>Astronomische Jahresberichte</i> ) ... ..	2500
Commission 10 ( <i>Quarterly Bulletin on Solar Activity</i> ) ... ..	1000
Commission 15 ( <i>Reproduction des clichés, spectres cométaires</i> ) ... ..	523
Commission 23 ( <i>Astrographic Catalogues</i> ) ... ..	6904
Commission 23 ( <i>Elements des clichés de la zone +20° à +25°, Heckmann</i> ) ... ..	1500
Commission 24 ( <i>Publication de la 3ième édition du Parallax Catalogue</i> ) ... ..	1500
Comité de Gestion ( <i>Tables de Constantes</i> ) ... ..	1000
	Total \$15527

*Remarks*

Commission 5 (*Astronomische Jahresberichte*)—This subvention was allotted by the Executive Committee in 1951.

Commission 10 (*Quarterly Bulletin on Solar Activity*)—This subvention was allotted by the Executive Committee in 1954. (See report, meetings of Executive Committee in the present volume.)

The subvention of \$1000 for the publication of Vols. 4 and 5 of *Tables de Constantes* was also allotted by the Executive Committee in 1954. (See report of meetings of Executive Committee in the present volume.)

The total expenses on the Bureau of the Union amounted in this period to \$30,566. Several expenses, however, were partly reimbursed by U.N.E.S.C.O. The following table shows the expenses in more detail, together with the subventions received from U.N.E.S.C.O.

	Paid by I.A.U.	Reimbursed by U.N.E.S.C.O.
	\$	\$
Annual dues to I.C.S.U. ... ..	831	—
Draft Report and <i>Transactions</i> , Vol. 8 ... ..	9476	*
Travel expenses, Rome General Assembly, including Symposia	6705	5662
Meetings of Executive Committee ... ..	1467	1366
Symposium: 'Co-ordination of Galactic Research' ... ..	3490	3490
Symposium: 'Gas-dynamics and Interstellar Clouds' ... ..	2995	2951
Meeting of Committee of International Latitude Service ... ..	156	—
Grant allocated to International Latitude Service ... ..	300	—
General Secretariat ... ..	5146	—
	Total \$30566	\$13469

\* See remark on publications above.

The following subventions, voted by the General Assembly, have not yet been paid, but should be considered as commitments:

	\$
Commission 5 ( <i>Bibliographie mensuelle</i> ) ... ..	326
Commission 5 ( <i>Observatoires et Astronomes</i> ) ... ..	523
Commission 11 ( <i>Paris, Polarimètre photoélectrique, Lyot</i> ) ... ..	2025
Commission 12 ( <i>Solar Spectrum Tables</i> ) ... ..	1960
Commission 19 ( <i>Publication des Résultats de la Variation des Latitudes</i> )	2613
Commission 23 ( <i>Astrographic Catalogue</i> ) ... ..	6942
Commission 29 ( <i>Photographic Atlas of Spectra of Diatomic Molecules</i> )	1633
Commission 38 ( <i>Echange des Astronomes</i> ) ... ..	8552

*Remarks*

It is to be expected that the grant allocated to Commission 29 will not be required.

INCOME AND EXPENDITURE, 1952  
DOLLARS

	INCOME	EXPENDITURE	
Balance, 1 Jan. 1952 ...	...	...	\$46934.96
Subscriptions:	...	...	
U.S.A. (1951, 1952) ...	...	...	\$2013.50
Germany (1952, W. Germany) ...	...	...	816.50
(1951 part; 1952, E. Germany)	...	...	726.13
Chile (1952, 1953 part) ...	...	...	300.00
Mexico (1949-52) ...	...	...	1308.00
U.S.S.R. (1952) ...	...	...	1306.40
Czechoslovakia (1951) ...	...	...	489.90
Belgium (1952) ...	...	...	324.20
Switzerland (1952) ...	...	...	163.30
Canada (1950, 1951) ...	...	...	979.80
Vatican City State (1950, 1951) ...	...	...	326.69
Portugal (1952) ...	...	...	326.45
Australia (1951) ...	...	...	325.06
	<u>\$10005.93</u>		
U.N.E.S.C.O. grant 1952 ...	...		5500.00
Transfer from Copenhagen account	...		1306.80
	<u>\$16812.73</u>		16812.73
		Commission 24: <i>Parallax Catalogue</i> ...	\$1500.00
		Commission 38: Exchange of Astronomers ...	2384.00
		U.N.E.S.C.O., unspent grant ...	354.80
		Bureau of the Union (including travel expenses, Rome meeting, ad. \$1258.43 and meeting Executive Committee, Paris, \$93.00) ...	1944.63
			<u>\$6183.43</u>
		Balance, 1 Nov. 1952 ...	57564.26
			<u>\$63747.69</u>

INCOME AND EXPENDITURE, 1952-53  
DOLLARS

INCOME	\$57564.26	EXPENDITURE	\$20266.21
Balance, 1 Nov. 1952	...	Commission 5: <i>Astronomische Jahrberrichte</i> ad \$2500 and <i>Astronomical News Letters</i> ad \$300	...
Subscriptions:	...	<i>Astronomical News Letters</i> ad \$300	\$2800.00
Czechoslovakia (1952)	\$489.90	Commission 10: <i>Helio-graphic Charts</i>	654.00
Spain (1952)	1306.40	Commission 20: Minor Planet Centre	1012.00
Switzerland (1953)	165.72	Commission 23: <i>Astro-graphic Catalogue</i>	1500.00
Finland (1952, 1953)	330.41	Commission 38: Exchange of Astronomers	600.00
Portugal (1953)	326.60	U.N.E.S.C.O. unspent grants 1951	2200.00
Germany (1953, W. Germany)	816.50	I.C.S.U. dues for 1952	194.61
(1953, E. Germany)	489.90	Groningen Symposium	2382.05
Belgium (1953)	326.59	Cambridge Symposium	1801.60
U.S.S.R. (1953)	1306.40	Bureau of the Union (including travel expenses, Rome meeting, ad \$2786.80 and grant, International Latitude Service, ad \$300)	3121.95
Japan (1953)	1306.40	Transfer to French francs account	4000.00
Hungary (1950)	326.60		
Italy (1953)	1306.00		
U.S.A. (1953)	1306.77		
	<u>\$9804.19</u>		
	5250.00		
U.N.E.S.C.O. grant 1953	1000.00		
I.C.S.U. additional grant, Groningen sym- posium	35.37		
Transfer from guilders account	...		
	<u>\$16089.56</u>		
	16089.56	Balance, 1 Nov. 1953	53387.61
	<u>\$73653.82</u>		<u>\$73653.82</u>

INCOME AND EXPENDITURE, 1953-54

DOLLARS

	INCOME	EXPENDITURE	
Balance, 1 Nov. 1953	...	...	\$300.00
Subscriptions:	\$53387.61	...	300.00
Argentina (1941-53)	...	Commission 5: <i>Astronomical News Letters</i> ...	1000.00
Australia (1953)	\$4801.02	Commission 10: <i>Heliographic Charts</i> ...	523.00
Belgium (1954)	327.62	Commission 10: <i>Quarterly Bulletin</i> ...	900.00
Canada (1952-54)	327.66	Commission 15: <i>Atlas Cometary Spectra</i> ...	60.28
Czechoslovakia (1953)	1469.70	Commission 23: <i>Astrographic Catalogue</i> ...	160.03
Germany (1952 part; 1954, E. Germany)	489.00	Commission 38: Exchange of Astronomers	...
(1954, W. Germany)	743.57	I.C.S.U., unspent grant 1953	...
Finland (1954)	816.50	I.C.S.U. dues for 1953	...
Greece (1951-53)	163.30	Bureau of the Union (including travel expenses meeting,	...
Hungary (1951, 1952)	489.90	Liège Executive Committee, ad \$991.54)	...
Italy (1954)	653.20	...	1010.64
Japan (1954)	1306.40	...	<u>\$4688.95</u>
Portugal (1954)	1306.40	...	...
Roumania (1951-54)	326.60	...	...
Spain (1953, 1954)	1306.40	...	...
Switzerland (1954)	2612.80	...	...
U.S.A. (1954)	163.30	...	...
U.S.S.R. (1954)	1306.40	...	...
Vatican City State (1952-54)	489.90	...	...
Venezuela (1954)	163.30	...	...
	<u>\$20569.37</u>	...	...
U.N.E.S.C.O. grant 1954	5260.00	...	74828.68
U.N.E.S.C.O. extra grant for publications	...	...	...
1953 ...	250.00	...	...
Sale of publications	13.99	...	...
Interest	36.66	...	...
	<u>\$26130.02</u>	Balance, 1 Nov. 1954	74828.68
	26130.02	...	...
	<u>\$79517.63</u>	...	<u>\$79517.63</u>

INCOME AND EXPENDITURE, 1952

POUNDS

INCOME		EXPENDITURE	
£	s. d.	£	s. d.
...	...	...	...
Balance, 1 Jan. 1952	3617 19 1	Commission 38: Exchange of astronomers	...
Subscriptions:		Dues of I.A.U. to I.C.S.U. (1948 part, 1949, 1950 and 1951)	...
Yugoslavia (1952) ...	175 0 0	Bureau of the Union (including Cambridge University Press, ad £361. 0s. 4d.)	...
Great Britain (1952)	466 11 5		...
Eire (1949-52)	233 5 8		...
India (1952)	116 13 9		...
	<u>991 10 10</u>	Balance, 1 Nov. 1952	...
	<u>£4609 9 11</u>		<u>£4609 9 11</u>

INCOME AND EXPENDITURE, 1952-53

POUNDS

INCOME		EXPENDITURE	
£	s. d.	£	s. d.
...	...	...	...
Balance, 1 Nov. 1952	3839 16 10	Commission 38: Exchange of Astronomers	...
Subscriptions:		Groningen Symposium	...
Australia (1952) ...	116 10 1	Cambridge Symposium	...
Yugoslavia (1953) ...	175 0 0	Bureau of the Union (including travel expenses, Rome meeting, ad £286. 16s. 4d. and Cambridge University Press for Draft Reports ad £912. 17s. 5d.)	...
Ireland (1953)	58 6 5		...
Great Britain (1953)	464 1 9		...
India (1953)	116 13 9		...
South Africa (1951, 1952, 1953) ...	175 0 3		...
	<u>1105 12 3</u>		...
U.N.E.S.C.O. grant 1953 (\$2500)	892 17 2		...
Sale publications	13 0 0		...
	<u>2011 9 5</u>	Balance, 1 Nov. 1953	...
	<u>£5851 6 3</u>		<u>£5851 6 3</u>

INCOME AND EXPENDITURE, 1953-54

POUNDS

	INCOME			EXPENDITURE		
	£	s.	d.	£	s.	d.
Balance, 1 Nov. 1953	...	...	...	3922	15	9
Subscriptions:	...	...	...	...	...	...
Australia (1954)	117	0	0	Bureau of the Union (including printing of Vol. 8 of <i>Transactions</i> ad £2110. 7s. 6d.; travel expenses, meeting International Latitude Service, Paris, ad £55. 11s. 9d. and travel expenses, meeting Executive Committee, Liège, ad £54. 15s. 4d.) ... ..		
Denmark (1954)	58	6	5	...	...	...
Egypt (1953)	175	4	1	...	...	...
Eire (1954)	58	6	8	...	...	...
Great Britain (1954)	464	1	8	...	...	...
India (1954)	116	13	6	...	...	...
Norway (1954)	57	17	0	...	...	...
South Africa (1954)	58	6	5	...	...	...
Sweden (1954)	116	12	10	...	...	...
Yugoslavia (1954)	175	0	0	...	...	...
	1397	8	7	...	...	...
U.N.E.S.C.O. grant 1954	1250	0	0	...	...	...
Sale of publications	18	18	10	...	...	...
Transfer from Danish crowns account	126	4	9	...	...	...
	2792	12	2	...	...	...
				2792	12	2
				£6715 7 11		
				4494	9	6
				£6715 7 11		

INCOME AND EXPENDITURE, 1952

GUILDERS

INCOME	Fl.	Fl.	EXPENDITURE	Fl.
Balance, 1 Jan. 1952	...	1453.62	Commission 27: 47th <i>Name-list</i> and English version of second supplement to <i>General Catalogue of Variable Stars</i>	2002.55
Subscriptions:			Bureau of the Union (including travel expenses, I.C.S.U. meeting, ad Fl. 157.15 and travel expenses, Rome meeting, ad Fl. 1302.63)	3453.70
Denmark (1952)	620.00			5456.25
Spain (1935-46, part)	8629.18			
	<u>9249.18</u>			
U.N.E.S.C.O. grant 1952 (\$1500)	5686.13			
Interest	2.87			
Transfer back, Rome meeting	25.07			
	<u>14963.25</u>	14963.25	Balance, 1 Nov. 1952	10960.62
		<u>Fl. 16416.87</u>		<u>Fl. 16416.87</u>

INCOME AND EXPENDITURE, 1952-53

GUILDERS

INCOME	Fl.	Fl.	EXPENDITURE	Fl.
Balance, 1 Nov. 1952	...	10960.62	Commission 27: English version of third and fourth supplements to <i>General Catalogue of Variable Stars</i> and of <i>Catalogue of Suspected Variables</i>	1654.54
Subscriptions:			Commission 38: Exchange of Astronomers	2128.00
Netherlands (1952, 1953)	2487.06		Groningen Symposium	1472.40
U.N.E.S.C.O. grant 1953 (\$849.13)	3204.26		Cambridge Symposium	926.60
Sale of publications	42.84		Bureau of the Union	4539.16
Interest	75.18		Transfer to dollar account \$35.37	134.40
Transfer from Swedish account	471.69			
	<u>6281.03</u>	6281.03	Balance, 1 Nov. 1953	10855.10
		<u>Fl. 17241.65</u>		<u>6386.55</u>
				<u>Fl. 17241.65</u>

INCOME AND EXPENDITURE, 1953-54

GUILDERS

	INCOME	Fl.	Fl.	EXPENDITURE	Fl.
Balance, 1 Nov. 1953	...	...	6386.55	Bureau of the Union (including travel expenses, Liège meeting, Executive Committee, ad Fl. 364.20) ...	2828.69
Subscriptions:	...	1237.20			
Netherlands (1954)	...	4961.00			
Poland (1954)	...	6198.20			
Sale of publications	...	28.33			
Interest ...	...	10.46			
		<u>6236.99</u>	<u>6236.99</u>	Balance, 1 Nov. 1954 ...	9794.85
			<u>Fl. 12623.54</u>		<u>Fl. 12623.54</u>

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INCOME AND EXPENDITURE 1952

DANISH CROWNS

	INCOME	D.crs.	D.crs.	EXPENDITURE	D.crs.
Balance, 1 Jan. 1952	...	...	3504.96	Commission 6: Télégrammes Astronomiques ...	2379.09
Subscriptions:	...	3370.90		Bureau of the Union (including travel expenses, Rome meeting, ad D.crs. 885.15) ...	8156.86
Egypt (1951)	...	9010.39		Transfer to dollar account ...	9046.06
Japan (1952)	...	1130.00			
Norway (1952)	...	2260.00			
Sweden (1952)	...	15771.29			19582.01
Sale of publications	...	10.00			
Interest ...	...	391.99			
		<u>16173.28</u>	<u>16173.28</u>	Balance, 1 Nov. 1952 ...	96.23
			<u>D.crs. 19678.24</u>		<u>D.crs. 19678.24</u>



INCOME AND EXPENDITURE, 1952-53

DANISH CROWNS

INCOME		D.crs.	D.crs.	EXPENDITURE		D.crs.
Balance, 1 Nov. 1952	...	...	96.23	Commission 6: Télégrammes Astronomiques	...	2712.09
Subscriptions:	...	...		Bureau of the Union	...	350.00
Denmark (1953)	...	1130.00			...	3062.09
Egypt (1952) ...	...	3378.11			...	
Norway (1953)	...	1124.82			...	
Sweden (1953)	...	2260.00			...	
	...	7892.93			...	
Interest ...	...	118.25			...	
	...	8011.18	8011.18	Balance, 1 Nov. 1953	...	5045.32
	...		<u>D.crs. 8107.41</u>		...	<u>D.crs. 8107.41</u>

INCOME AND EXPENDITURE, 1953-54

DANISH CROWNS

INCOME		D.crs.	D.crs.	EXPENDITURE		D.crs.
Balance, 1 Nov. 1953	...	...	5045.32	Commission 6: Télégrammes Astronomiques	...	2712.09
Interest ...	...	155.33	155.33	Bureau of the Union	...	27.00
	...			Transfer to sterling account	...	2461.56
	...		<u>D.crs. 5200.65</u>		...	<u>D.crs. 5200.65</u>

INCOME AND EXPENDITURE, 1952

SWEDISH CROWNS

INCOME	Sw.crs.	EXPENDITURE	Sw.crs.
Balance, 1 Jan. 1952 ... ..	1295.64	Bureau of the Union (including travel expenses for Rome meeting) ... ..	2951.73
Transfer from dollar account ... ..	2300.00	Transfer to guilder account (in 1952-53) ... ..	643.91
	<u>Sw.crs. 3595.64</u>		<u>Sw.crs. 3595.64</u>

INCOME AND EXPENDITURE, 1952

LIRES

INCOME	Lires	EXPENDITURE	Lires
Subscriptions: Italy (1952) ... ..	818575	Commission 6: Télégrammes Astronomiques ... ..	30000
	<u>Lires 818575</u>	Bureau of the Union (including travel-grants, Rome meeting, ad. Lires 306018) ... ..	785029
		Transfer to French francs account ... ..	3546
			<u>Lires 818575</u>

INCOME AND EXPENDITURE, 1948

FRENCH FRANCS

INCOME	Fr. frs.	EXPENDITURE	Fr. frs.
U.N.E.S.C.O. grant 1948 ... ..	52400	Bureau of the Union (travel expenses, Zürich meeting) ... ..	87663
Transfer from Swiss account ... ..	45000	Balance, 1 Jan. 1949 ... ..	9737
	<u>Fr. frs. 97400</u>		<u>Fr. frs. 97400</u>

INCOME AND EXPENDITURE, 1952  
SWEDISH CROWNS

Sw.crs.		Sw.crs.
...	1295.64	Bureau of the Union (including travel expenses for Rome meeting) ... ..
...	2300.00	Transfer to guilder account (in 1952-53) ... ..
Sw.crs.	<u>3595.64</u>	Sw.crs.
		<u>2951.73</u>
		<u>643.91</u>
		<u>3595.64</u>

INCOME AND EXPENDITURE, 1952  
LIRES

Lires		Lires
...	818575	Commission 6: Télégrammes Astronomiques ... ..
		Bureau of the Union (including travel-grants, Rome meeting, ad. Lires 306018) ... ..
Lires	<u>818575</u>	Transfer to French francs account ... ..
		Lires
		<u>30000</u>
		<u>785029</u>
		<u>3546</u>
		<u>818575</u>

INCOME AND EXPENDITURE, 1948  
FRENCH FRANCS

Fr.frs.		Fr.frs.
...	52400	Bureau of the Union (travel expenses, Zürich meeting) ... ..
...	45000	Balance, 1 Jan. 1949 ... ..
Fr.frs.	<u>97400</u>	Fr.frs.
		<u>87663</u>
		<u>9737</u>
		<u>97400</u>

INCOME AND EXPENDITURE, 1949  
FRENCH FRANCS

INCOME	Fr.frs.	Fr.frs.	EXPENDITURE	Fr.frs.
Balance, 1 Jan. 1949	...	9737	Commission 23: <i>Astrogaphic Catalogue</i>	300000
Subscriptions:	...	...	Commission 38: Exchange of Astronomers	12568
France (1948)	...	245705	Bureau of the Union (including Symposium on 'Problems of	...
France (1949)	...	429806	Cosmical Aerodynamics' ad Fr.frs. 212625 and grant for	...
		<u>675511</u>	publication of volume on H. Poincaré, ad Fr.frs. 816300)	<u>1028925</u>
U.N.E.S.C.O. grant	...	816300		<u>1341493</u>
Transfer back B.I.H.	...	71091		
		<u>1562902</u>	Balance, 1 Jan. 1950	231146
		<u>Fr.frs. 1572639</u>		<u>Fr.frs. 1572639</u>

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INCOME AND EXPENDITURE, 1950  
FRENCH FRANCS

INCOME	Fr.frs.	Fr.frs.	EXPENDITURE	Fr.frs.
Balance, 1 Jan. 1950	...	231146	Commission 11: <i>Synoptic Charts</i>	500000
Subscriptions:	...	...	Commission 23: <i>Astrogaphic Catalogue</i>	701410
France (1950)	...	457100	Commission 38: Exchange of Astronomers	31172
		<u>457100</u>	Bureau of the Union (travel expenses, Stockholm meeting,	<u>104544</u>
Transfer from dollar account	...	190000	Executive Committee)	<u>1337126</u>
U.N.E.S.C.O. grant 1950	...	883750		<u>424870</u>
		<u>1530850</u>	Balance, 1 Jan. 1951	...
		<u>Fr.frs. 1761996</u>		<u>Fr.frs. 1761996</u>

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INCOME AND EXPENDITURE, 1951  
FRENCH FRANCS

INCOME	Fr.frs.	Fr.frs.	EXPENDITURE	Fr.frs.
Balance, 1 Jan. 1951	...	424870	Commission 5: <i>Bibliography</i>	...
Subscriptions:	...	...	Commission 11: <i>Synoptic Charts</i>	...
France (1951)	...	457100	Commission 23: <i>Astrographic Catalogue</i>	...
	...	457100	Commission 31: Bureau Intern. de l'Heure	...
U.N.E.S.C.O. grant 1951	...	3132500	Commission 38: Exchange of Astronomers	...
	...	3589600	Bureau of the Union (Paris meeting of Executive Committee)	...
	...	3589600	Balance, 1 Jan. 1952	...
	...	<u>Fr.frs. 4014470</u>		Fr.frs. 4014470

INCOME AND EXPENDITURE, 1952 (CALENDAR YEAR)  
FRENCH FRANCS

INCOME	Fr.frs.	Fr.frs.	EXPENDITURE	Fr.frs.
Balance, 1 Jan. 1952	...	233670	Commission 11: <i>Synoptic Charts</i>	...
Subscriptions:	...	...	Commission 23: <i>Astrographic Catalogue</i>	...
France (1952)	...	457240	Commission 38: Exchange of Astronomers	...
	...	457240	Commission 31: Bureau Intern. de l'Heure	...
U.N.E.S.C.O. grant 1952	...	2555000	Bureau of the Union (including grant, publication Dr	...
Transfer from dollar account	...	349411	Grouiller, ad Fr.frs. 58374 and travel expenses, Rome	...
Transfer back, Rome meeting	...	34440	meeting, ad Fr.frs. 129692)	...
	...	3396091	Balance, 1 Jan. 1953	...
	...	<u>Fr.frs. 3629761</u>		Fr.frs. 3629761

INCOME AND EXPENDITURE, 1953  
FRENCH FRANCS

INCOME	Fr.frs.	Fr.frs.	EXPENDITURE	Fr.frs.
Balance, 1 Jan. 1953	...	182110	Commission 11: <i>Synoptic Charts</i>	...
Subscriptions:	...	...	Commission 23: <i>Astrographic Catalogue</i>	...
France (1953)	...	457240	Commission 31: Bureau Intern. de l'Heure	...
		<u>457240</u>	Commission 38: Exchange of Astronomers	...
U.N.E.S.C.O. grant 1953	...	1750000	Groningen Symposium	...
Transfer back, Rome meeting	...	53585		...
Transfer from dollar account	...	1048363		...
		<u>3309188</u>	Balance, 1 Nov. 1953	...
		3309188		100926
		<u>Fr.frs. 3491298</u>		<u>Fr.frs. 3491298</u>

INCOME AND EXPENDITURE, 1953-54  
FRENCH FRANCS

INCOME	Fr.frs.	Fr.frs.	EXPENDITURE	Fr.frs.
Balance, 1 Nov. 1953	...	100926	Commission 23: <i>Astrographic Catalogue</i>	...
Subscriptions:	...	...	Commission 31: Bureau Intern. de l'Heure	...
France (1954)	...	457240	Bureau of the Union (including travel expenses, meeting Liège, Executive Committee ad Fr.frs. 44642 and grant, <i>Tables de Constantes</i> ad Fr.frs. 350000)	...
Poland (1948-53)	...	2561974		...
		<u>3019214</u>		...
U.N.E.S.C.O. grant 1954	...	1750000		...
Transfer from Lire account	...	2200		...
		<u>4771414</u>	Balance, 1 Nov. 1954	...
		4771414		1574421
		<u>Fr.frs. 4872340</u>		<u>Fr.frs. 4872340</u>